

REMARKS

The present application includes claims 1-16. Claims 1-16 were rejected by the Examiner. Claims 1, 5, 11, 13, 14, 15, and 16 have been amended by this response. New claims 17-20 have been added.

New independent claim 17 is directed to remotely monitoring a picture archiving and communication system. Claim 17 teaches connecting to a web-based server using a network. The web-based server is instructed to extract log data from at least one of the workstations in the picture archiving and communication system. The log data is transmitted to a remote terminal for analysis to identify errors. Dependent claim 18 recites the additional limitation of extracting an image file from a workstation. New independent claim 19 is directed to remotely enhancing a picture archiving and communication system. Claim 19 recites connecting to a web-based server using a network. The web-based server is instructed to update software on workstations in the picture archiving and communication system. The web-based server simultaneously updates software on the workstations. New dependent claim 20 recites the additional limitation of logging on to the web-based server and authenticating a user. The Applicants respectfully assert that new claims 17-20 recite patentable subject matter.

The Examiner's rejection of claims 1, 5 and 14 under 35 U.S.C. § 112, second paragraph, was partially missing in the Office Action as mailed to the Applicants. A phone conference with the Examiner on Monday, November 18, 2002, clarified that the

rejection was based upon the Examiner's assertion that "the Internet" and "Picture Archiving and Communications System (PACS)" were trademark names. After a search of the USPTO website, the acronym "PACS" was found to be a trademark in certain fields, but "Picture Archiving and Communications System" was not. Claims 1, 5, 11, 13, 14, 15 and 16 have been amended accordingly. Additionally, it is unclear whether "the Internet" or "Internet" is a trademarked term. However, per the Examiner's suggestion, claims 1, 5, 11 and 14 have been amended to replace "Internet" with "network".

The Examiner objected to the drawings because Apparatus 300 and Method 500 were missing from the drawings. Corrected informal drawings are submitted with this Amendment.

Claims 5, 6, 8, 14 and 16 were rejected under 35 U.S.C. § 102(e) as being unpatentable over Zur (U.S. Patent No. 6,178,225).

Claims 1-4 and 11-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zur in view of Allison (U.S. Patent No. 6,094,531).

Claims 7 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zur in view of Dickey (U.S. Patent No. 5,881,236).

Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zur in view of Neal (U.S. Patent No. 6,192,518).

The Applicants first turn to the Examiner's rejection of claims 5, 6, 8, 14 and 16 over Zur. Zur relates to a system and method for management of X-ray imaging facilities. That is, Zur relates to a system and method for billing a customer for images obtained and services used (col. 3, lines 35-37). In order to determine usage charges for use of the X-ray imaging facility, Zur allows an operator to view obtained x-ray images. The operator accepts or rejects the obtained images to generate a bill for a customer for X-ray system use (col. 5, lines 19-65). Thus, the system allows computation of "per image" expenses for digital X-ray imaging (col. 4, lines 15-18).

A digital X-ray image of a patient is captured in an X-ray facility (col. 4, lines 25-30). The system increments an "accept" shot counter if an x-ray image is accepted by the technician (col. 5, lines 43-46). A "rejected" shot counter is incremented if an x-ray image is rejected by the technician (col. 5, lines 46-47). Accepted x-ray images may be stored or printed for use by a radiologist in diagnosis (col. 5, lines 60-65). A billing or service center receives accept and reject usage statistics from metering systems in the X-ray facility (col. 5, lines 19-23, col. 6, lines 5-8). Image size and file size may also be transmitted to the service center (col. 6, lines 1-4). Billing and usage statistics may be transmitted using electronic mail (col. 6, lines 18-41). Statistics may also be obtained by electronically or manually polling the X-ray imaging facilities for updates (col. 6, lines 42-57).

Thus, Zur is directed to counting the number of x-ray images saved for use in patient diagnosis. The number of accepted images, as well as other information such as image size is used to generate billing output to accurately bill for imaging services. The

meter information is also used to track the number of x-ray images that are accepted or rejected by an operator (see Figures 2 and 3).

The present application relates to remotely monitoring and enhancing a picture archiving and communication system. A web-based server on a network is instructed to retrieve data from at least one of a plurality of picture archiving and communication system workstations in communication with the web-based server. The data includes log data. The data is retrieved and analyzed for an error indicator. Additionally, software may be provided for installation or update on a picture archiving and communication system workstation. The web-based server may be instructed to simultaneously install or update the software on a plurality of picture archiving and communication system workstations.

Conversely, as described above, Zur does not teach simultaneously installing software on a plurality of picture archiving and communication systems. This limitation is recited in independent claims 1, 11 and 19. Rather, Zur teaches reading meters to obtain a count of accepted and rejected images for use in customer billing. Zur also does not teach the use of a web-based server. This limitation is recited in independent claims 1, 5, 11, 14, 17 and 19.

Additionally, Zur does not teach directing a web-based server to retrieve data from a picture archiving and communication system workstation as recited in claims 5 and 17. Furthermore, Zur does not teach retrieving data including log data, as recited in claims 5 and 17. Rather, Zur teaches reading metered counters for accept and reject values. Zur also does not teach analyzing the data for an error indicator. This limitation

is recited in claims 5 and 17. On the contrary, Zur teaches using the accept counter information to generate a bill for X-ray imaging services. Therefore, the Applicants respectfully submit that independent claims 1, 5, 11, 14, 17 and 19 and their respective dependent claims are patentable over Zur.

The Applicants now turn to the Examiner's rejection of claims 1-4 and 11-13 over Zur in view of Allison. Allison relates to a method and apparatus for automatically installing an operating system on a test computer via a serial port of the test computer. An installer communicates with a test machine to install the appropriate operating system (col. 4, lines 46-54). The test machine sends ASCII patterns to the installation program (col. 4, lines 66-67). The installation program generates an appropriate ASCII pattern response (col. 5, lines 1-6). The appropriate language and operating system are chosen according to preselected criteria (col. 5, lines 19-30). When the installer receives a request to install a particular machine, the installer is provided with the name of the machine and the type of operating system to be installed (col. 5, lines 40-44).

The test machines of Allison are used for testing software and hardware on different computer platforms (col. 6, lines 23-25). Allison includes an automated test system, test machines, and scripts to execute test software and hardware on the test machines based on capacity and availability (col. 6, lines 23-33). Allison is directed to a system for running tests based on computer availability and operating system compatibility. Allison runs scripts to gauge computing resource allocation and match

tests written in a certain programming language to a computer operating system functioning under that programming language (col. 5, lines 19-39, col. 6, lines 60-67).

In Allison, users send requests to dispatchers for tests to be run on test computers (col. 6, lines 60-62). Requests are assigned a priority in relation to other jobs or test requests, and availability of computing power to execute the requests is determined (col. 6, lines 60-67). The dispatchers determine if a test computer is available and if the test computer is running the correct operating system to execute the test (col. 6, lines 65-67, col. 7, line 1). If a test machine has available resources, the dispatcher “wakes up” the test machine and instructs it to request work (col. 7, lines 1-4). Launchers or dispatchers prioritize waiting jobs, check compatibility between a job and a test machine, and send jobs to test machines based on priority (col. 7, lines 8-24).

Allison does not teach a picture archiving and communication system, as recited in independent claims 1, 5, 11, 14, 17 and 19. Rather, Allison relates to a software and hardware testing system. Additionally, Allison does not teach retrieving data from at least one picture archiving and communication system workstation. Conversely, as described above, Allison tests software and hardware on test computers. This limitation is recited in claims 5, 14 and 17. Furthermore, Allison does not teach sending a remote signal to a web-based server to simultaneously install software to a plurality of picture archiving and communication systems. This limitation is recited in claims 1, 11 and 19.

There is no suggestion in the art to combine the software and hardware testing system of Allison with the X-ray image facility billing system of Zur. The test machines of Allison have no use in the X-ray facility of Zur. The accept/reject billing system of

Zur has no use with the hardware and software testing of Allison. As described above, neither Allison nor Zur teach or suggest the claim limitations of the present application. Even if Allison and Zur were combined, the combination would not teach or suggest extracting log data and analyzing the log data for an error indicator. The combination also would not teach simultaneously installing software on a plurality of picture archiving and communication system workstations. Therefore, the Applicants respectfully submit that independent claims 1, 5, 11, 14, 17 and 19 and their respective dependent claims are patentable over Zur in view of Allison.

The Applicants next turn to the Examiner's rejection of claims 7 and 15 over Zur in view of Dickey. Dickey relates installing software on a remote computer system over a network using checksums and password protection. That is, Dickey executes software stored on a local storage device at a remote computer (col. 2, lines 10-12). A user logs on to the remote computer from a local computer and sends commands to the remote computer to cause the remote computer to connect to a storage device (col. 2, lines 12-18, col. 4, lines 45-55, col. 5, lines 35-38). The local computer instructs the remote computer to mount the storage device as a local device using Network File Services (col. 2, lines 15-18, col. 5, lines 45-54).

The local computer validates the software on the storage device by sending a command to the remote computer system to cause the remote system to perform a checksum test of the software (col. 2, lines 19-22, col. 5, lines 55-60). The local computer receives and verifies the checksums by comparing them to checksum values stored in the

local software (col. 2, lines 22-26, col. 5, lines 60-64). If the checksum is verified, then the local computer sends commands to the remote computer to cause the remote computer to execute the software on the storage device (col. 2, lines 27-29, col. 6, lines 6-7). A log is generated of the user login process and exchange of commands with the remote computer (col. 6, lines 7-12).

The local computer examines the remote computer to determine the type of operating system that is running on the remote computer (col. 2, lines 34-38). Once the operating system is determined, the software on the local computer then selects software to run on the remote computer to be compatible with the operating system of the remote computer (col. 2, lines 38-42, col. 7, lines 4-10). Then, the software is executed on the remote computer (col. 7, lines 14-17).

Dickey does not teach or suggest a picture archiving and communication system. This limitation is recited in independent claims 1, 5, 11, 14, 17 and 19. Dickey does not teach extracting log data from at least one of a plurality of picture archiving and communication system workstations and analyzing the data for an error indicator. This limitation is recited in claims 1, 14 and 17. Additionally, Dickey does not teach or suggest installing or updating software simultaneously to a plurality of picture archiving and communication system workstation using a web-based server on a network. This limitation is recited in claims 1, 11 and 19. Thus, as describe above, neither Zur nor Dickey teach or suggest the claimed limitations of the present application. Therefore, the Applicants respectfully submit that independent claims 1, 5, 11, 14, 17 and 19 and their respective dependent claims are patentable over Zur in view of Dickey.

Finally, the Applicants turn to the Examiner's rejection of claims 9 and 10 over Zur in view of Neal. Neal relates to a method for distributing software using e-mail (col. 2, lines 19-20). The source computer receives a request from a remote computer via e-mail (col. 3, lines 64-67). After receiving the e-mail request, the source computer responds in a series of e-mail messages to the remote computer (col. 4, lines 4-7). The remote computer receives the plurality of e-mail messages and combines them (col. 4, lines 8-11). A snapshot description file is then used to compare the remote computer to the source computer and bring the remote computer into compliance with the source computer using the e-mailed components (col. 4, lines 11-17).

The remote computer may search its e-mail inbox of its e-mail software to determine if it has received an e-mail message entitled "MBA 2.0" (col. 5, lines 9-13). If such an e-mail message is found, then the e-mail is removed from the inbox of the mail program on the remote computer and processed (col. 5, lines 14-18). The system of Neal does not search log files for indications of error.

Thus, Neal does not teach or suggest a picture archiving and communication system. This limitation is recited in independent claims 1, 5, 11, 14, 17 and 19. Neal does not teach extracting log data from at least one of a plurality of picture archiving and communication system workstations and analyzing the data for an error indicator. This limitation is recited in claims 1, 14 and 17. Additionally, Neal does not teach or suggest installing or updating software simultaneously to a plurality of picture archiving and communication system workstation using a web-based server on a network. This

limitation is recited in claims 1, 11 and 19. Thus, as describe above, neither Zur nor Neal teach or suggest the claimed limitations of the present application. Therefore, the Applicants respectfully submit that independent claims 1, 5, 11, 14, 17 and 19 and their respective dependent claims are patentable over Zur in view of Neal.

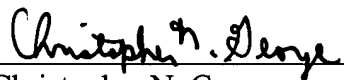
CONCLUSION

The Applicants submit that the present application is in condition for allowance. The Applicants look forward to working with the Examiner to resolve the remaining issues in the application. If the Examiner has any questions or the Applicants can be of any assistance, the Examiner is invited and encouraged to contact the Applicants at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

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ATTACHMENT FOR CLAIM AMENDMENTS

U.S. Serial No. 09/472,290; Filed December 27, 1999

The following is a marked-up version showing the amendments made to the application.

IN THE CLAIMS

Please amend the claims as follows.

1. (Amended) A method for remotely enhancing a picture archiving and communication system[(PACS)], said method comprising:

establishing [an Internet] a network connection with a web-based server;

providing software for installation to a picture archiving and communication system workstation;

directing the web-based server to simultaneously install the software to a plurality of [PACS] picture archiving and communication system workstations in communication with the web-based server; and

simultaneously installing software to the plurality of [PACS] picture archiving and communication system workstations.

5. (Amended) A method for remotely monitoring a picture archiving and communication system [(PACS)], said method comprising:

establishing [an Internet] a network connection with a web-based server;

directing the web-based server to retrieve data from at least one file from at least one of a plurality of [PACS] picture archiving and communication system workstations in communication with the web-based server, the data including a log;

retrieving the data from the at least one file; [and]

transmitting the data to a remote terminal; and

analyzing the data for an error indicator.

11. (Amended) An apparatus for remotely enhancing a picture archiving and communication system comprising:

a remote first terminal in communication with a web-based server via an Internet connection, said remote first terminal comprising a remote signal;

a plurality of [PACS] picture archiving and communication system workstations connected to said web-based server; and

said web-based server comprising an installer for simultaneously installing software to said plurality of [PACS] picture archiving and communication system workstations responsive to said remote signal.

13. (Amended) The apparatus of claim 11 wherein said web-based server comprises an installer for simultaneously installing software updates for pre-existing software to said plurality of [PACS] picture archiving and communication system workstations.

14. (Amended) An apparatus for remotely monitoring a picture archiving and communication system comprising:

a remote first terminal in communication with a web-based server via [an Internet] a network connection, said remote first terminal comprising a remote signal;

a plurality of [PACS] picture archiving and communication system workstations connected to said web-based server; and

said web-based server comprising a data retriever for retrieving data from at least one of said plurality of [PACS] picture archiving and communication system workstations responsive to said remote signal.

15. (Amended) The apparatus of claim 14 wherein said web-based server comprises said data retriever for retrieving log files from at least one of said plurality of [PACS] picture archiving and communication system workstations responsive to said remote signal.

16. (Amended) The apparatus of claim 14 wherein said web-based server comprises said data retriever for retrieving image files from at least one of said plurality of [PACS] picture archiving and communication system workstations responsive to said remote signal.